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Classification of the true bugs of the subfamily Peiratinae (Heteroptera: Reduviidae)*

DOMINIK CHŁOND

Department of Zoology, Faculty of Biology and Environmental Protection, University of Silesia,
Bankowa 9, 40-007 Katowice, Poland, e-mail: dominik.chlond@us.edu.pl

ABSTRACT. Subfamily Peiratinae of the assassin bugs (Reduviidae) is numerous and distributed worldwide. Still, there are few papers revising genera of this subfamily. Very little attention has been given so far to *Sirthenea* SPINOLA, one of the largest and most numerous genera in this subfamily. The revision of this and other genera will be the basis for the taxonomic study and for the study of relationships within subfamily Peiratinae.

Key words: Heteroptera, Reduviidae, Peiratinae, classification, revision.

Subfamily Peiratinae of the assassin bugs (Reduviidae) is numerous and distributed worldwide. 32 genera and over 300 species have been described so far (MALDONADO-CAPRILES 1990; COSCARÓN et MORRONE 1995; COSCARÓN 1995, 1996, 1997a; GIL-SANTANA et COSTA 2003; CAI et TOMOKUNI 2004, CAI et TAYLOR 2006); however, only a few taxa have been studied in detail.

The subfamily name Peiratinae was first used by Amyot i Serville (1843), who coined it from the genus *Peirates* described by Serville (1831). Since that time, the taxonomy of this subfamily has changed several times because new species were discovered and described, while those already known were synonymised.

Genus *Peirates* SERVILLE is one of the best analysed genera in this subfamily. As a result of a revision, two other genera, *Cleptocoris* STÅL and *Spilodermus* STÅL, have been synonymised with *Peirates* SERVILLE (COSCARÓN et MORRONE 1995; COSCARÓN, 1996); moreover, cladistic and biogeographical analyses have been conducted. Cladistic analysis based on 51 morphological characters showed three distinct groups in this genus: *Peirates quadrinotatus* group, *P. singularis* group and *P. lepturoides* group.

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The most important morphological characters in this analysis concerned *pronotum* and *scutellum* (COSCARÓN 1997b).

A similar research has been conducted on genus *Rasahus* AMYOT et SERVILLE (COSCARÓN 1983a, 1990, 1994a), species of *Sirthenea* SPINOLA from North and South America (WILLEMSE 1985), and China (CAI et LU 1990), species of *Ectomocoris* MAYR distributed in China (CAI et LU 1991), as well as less numerous genera, such as *Eidemannia* TAEUBER (COSCARÓN 1986, 1989), *Melanolestes* STÅL (McPHERSON et al. 1991; COSCARÓN et CARPINTERO 1994; COSCARÓN et MORRONE 1994), *Phorastes* KIRKALDY (LENT et JURBERG 1966; VAN DOESBURG 1981), *Tydides* STÅL (LENT 1955; LENT et JURBERG 1967), and *Tymbreus* STÅL (COSCARÓN 1994b).

One of the most interesting genera, distributed world-wide but not fully studied, is *Sirthenea* SPINOLA, which contains 35 species and many subspecies (MALDONADO-CAPRILES 1990, CAI et TOMOKUNI 2004). A taxonomic revision of 12 species from the New World and 3 species from China has been attempted so far by WILLEMS (1985) and CAI et LU (1990). Their works contain descriptions of morphological characters and keys to 15 species and 8 subspecies as well as information on the distribution. Many species, mostly from Africa, still need detailed study.

Results of continually updated research into various genera of subfamily Peiratinae, their revision and cladistic analysis help construct more consistent phylogenetic trees, as in the case of *Peirates* SERVILLE (COSCARÓN 1983b). Analyses of the distribution of the genera and species of this subfamily in the world supplement such studies, making it possible to account for chorological elements, which make the analysis of cladograms based on morphological characters much easier.

Classification of Peiratinae is subject to constant changes; thorough research into other genera of this subfamily will help determine phylogenetic relations within this group of insects. It is worth noting that more and more often such studies propose a detailed description of morphological characters which may serve as a basis to confirm the taxonomic position of a particular genus. A thorough examination of a large number of characters will help construct cladograms which are closer to the natural system. This, in turn, will make it possible to trace phylogenetic relations within subfamily Peiratinae and its phylogenetic links with other subfamilies of Reduviidae.

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